October 10, 2005

Mr. Jim Anderson, Portland Harbor Section Manager
DEQ Northwest Region
2020 SW Fourth Ave Ste 400
Portland OR 97201

Dear Jim:

AOI has reviewed the Interim Final version of the Portland Harbor Joint Source Control Strategy ("JSCS") that DEQ posted on its website in early September and wishes to offer some comments we hope will be helpful.

But first, AOI wants to thank you for the opportunity to comment on and discuss the document. The willingness of DEQ to work closely with AOI members is greatly valued; it has fostered better environmental outcomes and a productive relationship between the agency and the business community. We especially appreciated the opportunity to meet with you last week and, based on that meeting, we understand that DEQ itself has already looked at some of these issues of prioritization and practicality.

AOI supports DEQ's efforts to obtain scientifically valid information from which source control decisions can be made, and we understand the importance of doing this in a time frame that coordinates with the in-water investigation of Portland Harbor. Upon reading the document, AOI was concerned that the process outlined in the JSCS would not be practical or economical and could leave DEQ and performing parties with more questions than answers. As we discussed, we believe there are practical, effective ways to get the needed information, although those are not laid out in the document itself.

Also, as we discussed, AOI would be happy to provide a forum for DEQ to explain the JSCS to our membership. We will be in contact with you about scheduling such an event, with the tentative suggestion that we hold it in November.

Based on our meeting, we said we would put our thoughts in writing. In brief, AOI has the following concerns about the JSCS as presented:

Comments Regarding Screening Level Values

- Table 3-1 is described as containing "screening level values" (SLVs), yet the JSCS text in several places discusses the Table 3-1 values as if an exceedance of them is sufficient to trigger remedial action. For example, one of the listed objectives of the JSCS (page 1-1) is to "Provide screening level values (SLVs) or standards used to … define target cleanup goals for source control actions." This, of course, is inconsistent with the Oregon cleanup law scheme that AOI has cooperated with DEQ in framing over the years, both through the legislature and through rulemaking. Under the Oregon process, as under the federal process, remedial action can only be required when it has been determined that there is an unacceptable risk to human health or the environment. We appreciate your confirmation in our meeting that the Table 3-1 values are truly screening values, and we think this should be corrected in the text.

- As we discussed, you are already aware that there is an apparent error in the SLV units in Table 3-1. The units reported for organic compounds for soil and catch basin sediments in Table 3-1 are µg/kg (ppb), but a cross check of the references provided for those SLVs reveals that the tabled values are actually in units of mg/kg (ppm).

- Table 3-1 includes SLVs based on assumptions that do not appear appropriate for the intended use. For example:
  - Neither MCLs nor tap water PRGs are appropriate criteria for groundwater or surface water that does not have a likely drinking water use. The Lower Willamette River has a designated beneficial use for domestic water supply, but only "with adequate pretreatment and natural quality that meets drinking water standards." OAR 340-041-0340 Table 340A. Thus, although an MCL or tap water PRG would be appropriate to apply to water from the Willamette that was treated for drinking, neither is an appropriate screen for groundwater or surface water discharging into the Willamette. We understand that you will continue to look at MCLs as screening levels, and that a decision has not been made as to whether they are applicable or relevant and appropriate requirements (ARARs) for remedial action in a federal CERCLA sense. AOI does not believe they can or should be ARARs.
  - AOI does not understand how a 175 g/day consumption rate assumption is justified in the Portland Harbor, an assumption that leads to a ten-fold decrease in SLVs across the board.

- As we discussed, the SLVs are set so low that they will not be achievable with even the best laboratory detection limits for a number of organic compounds in an aqueous matrix. We understand that DEQ is aware of this limitation, and we suggested that either Table 3-1 or the text be modified to state that the screening will be acceptable if the analyte is not detected using reasonable commercially available analytical techniques.

- Along these same lines, a number of chemicals in Table 3-1 have no SLVs provided in any media. Inclusion of chemicals for which there are presently no SLVs is pointless. We suggest that the Table or text be clarified to state that the screening is not required to address substances that are listed on the Table but for which there are not yet SLVs.

- Even with the assumption that the program only calls for commercially available laboratory tests, the cost of the sampling program contemplated is prohibitive. We estimate that analyzing one storm water sample for the full range of analytes listed in Table 3-1 would cost between $3,000 and $5,000. (See Table 1 attached.) Given this cost for the full range of substances, we believe it is important that the analyte list be closely tailored to the circumstances of each particular site, and we appreciate your apparent willingness to do that.

- Table 3-1 does not take into account natural and anthropogenic background concentrations of any of the substances in Table 3-1 when, in fact, many background concentrations exceed the SLVs. AOI suggests that DEQ adopt an "ambient background" approach as it has in the Columbia Slough.

- It is inappropriate to apply these SLVs to catch basin samples, because the concentration of contaminants captured in a catch basin (which is the function of the catch basin) provides no evidence of the concentration of contaminants passing the catch basin and being released to the river. On the contrary, the most appropriate place to sample to determine whether solids in a storm water discharge are causing an exceedance of an SLV is in the sediments in the river at a location where any particulates from the storm water discharge are likely to settle.

<u>Issues Regarding the JSCS Process</u>

- If a property owner pays to conduct the assessment contemplated by the JSCS, they will want to be able to obtain a "no further action" determination. Also, if a site is initially characterized as a "low priority" or "medium priority" site, the property owner will want an opportunity for a reassessment to demonstrate that it is entitled to a "no further action" determination. However, as now conceived, it is highly unlikely that any site will be characterized as a "low priority" site because the SLVs are so low that it is virtually impossible that any sites will be screened out (i.e., not exceed one or more SLVs). As written, it does not appear that responding parties have any opportunity to get out of the process, once they are in. Based on our discussion of this issue, we sincerely hope that DEQ will consider redefining what it has called "low priority" sites as "no priority" sites and that it will work to develop a process by which sites for which "weight-of-evidence" assessments are performed are also given a practical way to "exit" the program.

- Perhaps AOI's biggest concern with the proposed JSCS is that, as written, the JSCS could require a huge expenditure of time and money, by both responding parties and by the DEQ. On the DEQ side, we have been told that DEQ does not have sufficient budget to maintain its current level of cleanup project managers. AOI has been supportive in the past of DEQ's budget needs to maintain appropriate personnel, but AOI also believes

DEQ needs to use the resources it has wisely, and effectively. The JSCS itself does not provide a framework for effectively and economically obtaining information needed for source control decisions, without spending time or money to obtain information that is not necessary to such decisions. As we discussed, what will be most relevant is obtaining information on contaminants that are ultimately found to be risk drivers in the Portland Harbor. AOI believes it is important to continue to adjust the JSCS as more information is obtained from the Portland Harbor RI/FS that informs and narrows the source control process.

- As described above, AOI does not believe MCLs or tap water PRGs are properly applied as ARARS to the river itself or to shallow groundwater in the Harbor that has no current or reasonably likely future drinking water use. AOI therefore could not support any source control actions based on MCLs or tap water PRGs as any kind of action level.

- AOI does not understand the assumption (e.g., at p. 4-7) that a source control remedial action evaluation will necessarily follow a CERCLA Engineering Evaluation/Cost Analysis (EE/CA) format. AOI believes a responding party should have the option of proceeding under the DEQ feasibility study rules, or using the EE/CA process, as appropriate.

- As we indicated at our meeting, AOI had specific concerns about Appendix E, the Framework for Portland Harbor Storm Water Screening Evaluations. As a starting point, Appendix E suggests that DEQ's evaluation of storm water in Portland Harbor focuses on industrial sources only and, of those, on those that are currently undergoing remedial investigations in the Cleanup program. The industrial footprint is only a small portion of the storm water drainage basin that enters Portland Harbor, whether that is measured by the current Portland Harbor study area or also accounts for storm water that is entering the system upstream of that study area. There are also flows from MS-4 municipal discharges, from the City of Portland's remaining CSO/storm water discharges, and from the many unpermitted storm water flows entering the system. AOI is concerned for three reasons. First, unless similar data are collected for all potential sources, DEQ will hold a large amount of data regarding a small portion of the flow and no data for the largest portions of that flow. Second, due to the nature of the SLVs, the data will be based on concentration of contaminants, not on the mass being contributed to the system; thus, although DEQ may then be in a position to recommend actions for a high concentration/low flow discharge, it will not be for a low concentration/high flow discharge even though that may dwarf contributions from the former. Third, even assuming that DEQ would not require the reduction of contaminants from other sources, unless DEQ develops a rigorous means to determine the amount of contaminants contributed from these sources it cannot develop a practical concept of ambient background. Without that, DEQ could end up requiring industry to make contaminant reductions of no value given the ambient concentrations of contaminants entering the system from other sources. In addition to these general concerns, as we discussed in our meeting, we have detailed comments on the procedures outlined in Appendix E, which we have attached separately.

Comments on the "Weight-of-Evidence" Approach

- AOI believes a more formal weight-of-evidence approach should be used to select bioaccumulative COIs. Greatest weight should be given to empirical evidence based on fish tissue analyses that indicate chemicals are either present in tissues of fish at potentially significant levels or are not. Physical properties of a chemical such as the octanol-water partition coefficient were used to categorize the bioaccumulation potential of chemicals. This classification method does not account for numerous factors that affect chemical bioaccumulation. For example many PAHs are metabolized by vertebrates and do not substantially accumulate in tissues. As expected, PAHs were rarely detected in tissues of fish from Portland Harbor analyzed as part of the Round 1 sampling event. None the less, PAHs were considered bioaccumulative chemicals in Table 3-1. If appropriate empirical data indicate a chemical is not accumulating in aquatic biota of Portland Harbor, the chemical should not be treated as bioaccumulative regardless of its octanol-water partition coefficient.

- It is recommended that more detail be given on how various lines of evidence should be weighed in a weight-of-evidence evaluation. Because many soil, sediment, and groundwater SLVs are below ambient concentrations (both natural and anthropogenic), it is likely that most sites will have chemicals that exceed an SLV. As a result, a weight-of-evidence evaluation will typically be used to make source control decisions. However, this document does not present a clear process for performing a weight-of-evidence evaluation.

- In any case, when weighing various lines of evidence, primacy should be given to empirical data that clearly characterize linkages between potential upland sources and sediment. Numerous factors determine whether an upland release can significantly impact sediment of the Willamette River, and simple comparisons of chemical concentrations in upland media with SLVs are insufficient to determine if risk management actions are warranted. For example, if sediment sample results clearly indicate that chemical concentrations downgradient of a potential upland source are not elevated above ambient levels, source control actions may not be warranted regardless of whether SLVs are exceeded in upland media (assuming the potential discharge location is in a depositional environment, etc.).

Again AOI appreciates the ability to comment on this important document and we look forward to continue working on this very important issue with you.

Sincerely,

John Ledger
Vice President, External Affairs